CLAIMS

1. A plug baffle device for installation in a coolant passage of a mold, the plug baffle device comprising a coolant-encountering fin and a base member mechanically attached thereto, the base member having a mold-connecting portion.

2. The plug baffle device of claim 1 wherein the base member is mechanically attached to the coolant-encountering fin through a mating connection.

3. The plug baffle device of claim 2 wherein the mating connection is accomplished by a male interconnecting member and a female interconnecting member.

4. The plug baffle device of claim 3 wherein the male interconnecting member is integral with the coolant-encountering fin and the female interconnecting member is integral with the base member.

5. The plug baffle device of claim 4 wherein:

- the female interconnecting member defines a fin-receiving channel having a channel cross-section; and
- the male interconnecting member has a base-engaging portion with a base-engaging-portion cross-section complementary to the channel cross-section.

6. The plug baffle device of claim 5 wherein the base-engaging-portion cross-section is T-shaped.

7. The plug baffle device of claim 5 wherein the base member has first and second ends and includes:

- a mold-connecting portion that is substantially cylindrical, has a threaded outer surface, and defines a tool-engaging socket opening at the first end of the base member; and
- an extension portion that extends from the mold-connection portion to form the second end of the base member first end, the extension portion having the female interconnecting member.

8. The plug baffle device of claim 7 wherein the tool-engaging socket has an axial depth which is at least 80% of the axial length of the threaded outer surface.

9. The plug baffle device of claim 8 wherein the tool-engaging socket has an axial depth which is at least 90% of the axial length of the threaded outer surface.

10. The plug baffle device of claim 7 wherein the extension portion narrows in cross-dimension toward the blade, thereby to provide lateral flow space adjacent thereto.

11. The plug baffle device of claim 1 wherein the base member has first and second ends and includes:

- a mold-connecting portion that is substantially cylindrical, has a threaded outer surface, and defines a tool-engaging socket opening at the first end of the base member; and
- an extension portion that extends from the mold-connection portion to form the second end of the base member first end, the coolant-encountering fin extension being attached thereto.

12. The plug baffle device of claim 11 wherein the tool-engaging socket has an axial depth which is at least 80% of the axial length of the threaded outer surface.

13. The plug baffle device of claim 12 wherein the tool-engaging socket has an axial depth which is at least 90% of the axial length of the threaded outer surface.

14. The plug baffle device of claim 11 wherein the extension portion narrows in cross-dimension toward the blade, thereby to provide lateral flow space adjacent thereto.

15. A plug baffle device comprising:

- a coolant-encountering fin having a base-member-engaging portion; and
- a base member defining an axis and defining a female fin-receiving portion which is mechanically attached to the fin.

16. The plug baffle device of claim 15 wherein the female fin-receiving portion is dimensioned to snugly engage the base-member-engaging portion.

17. The plug baffle device of claim 15 wherein:

- the female fin-receiving portion defining a fin-receiving space which has an axially-facing entrance of first cross-sectional area, the fin-receiving space having a second cross-sectional area axially spaced from the entrance, the second cross-sectional area being greater than the first cross-sectional area; and
- the base-member-engaging portion of the fin has a third axial cross-sectional area greater than the first cross-sectional area, thereby preventing axial disengagement of the fin from the base member.

18. The plug baffle device of claim 17 wherein:

- the base-member-engaging portion has a trans-axial cross-sectional shape which is substantially constant along at least a segment of the width thereof; and
- the fin-receiving space is a trans-axial channel configured and arranged to be substantially complementary to the base-member-engaging portion.

19. The plug baffle device of claim 18 wherein the trans-axial cross-sectional shape is T-shaped.

20. The plug baffle device of claim 15 wherein the fin has a coolant-contacting portion which is plate-like.

21. The plug baffle device of claim 15 wherein the fin has a coolant-contacting portion which is helical.

22. The plug baffle device of claim 15 wherein the base member has first and second ends and includes:

- a mold-connecting portion that is substantially cylindrical, has a threaded outer surface, and defines a tool-engaging socket opening at the first end of the base member; and
- an extension portion that extends from the mold-connection portion to form the second end of the base member first end, the coolant-encountering fin extension being attached thereto.

23. The plug baffle device of claim 22 wherein the tool-engaging socket has an axial depth which is at least 80% of the axial length of the threaded outer surface.

24. The plug baffle device of claim 23 wherein the tool-engaging socket has an axial depth which is at least 90% of the axial length of the threaded outer surface.

25. The plug baffle device of claim 22 wherein the extension portion narrows in cross-dimension toward the blade, thereby to provide lateral flow space adjacent thereto.

26. A method for making a plug baffle device having a plate-like fin secured to a base member which defines an axis, comprising the steps of:

- providing a fin which has a first-end portion with a male base-member-engaging configuration;
- providing a base member which has a trans-axially extending female fin-engaging channel; and
- urging the fin first-end portion trans-axially into the fin-receiving channel, whereby the fin is in tight, mechanical engagement with the base portion.

27. The method of claim 26 wherein:

- the base-member-engaging portion has a trans-axial cross-sectional shape which is substantially constant along at least a segment of the width thereof; and
- the female fin-receiving portion defines a trans-axial fin-receiving channel configured and arranged to be substantially complementary to the base-member-engaging portion.

28. The method of claim 27 wherein the trans-axial cross-sectional shape is T-shaped.